

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S2	20	("20010038698" "20020005777" "20020141599" "20020149705" "5588041" "5777665" "6151398" "6279946" "6445804" "6643377").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:43
S4	847	(((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) same directional) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional adj speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:11
S5	54	S4 and ((environment\$3 or vicinity or user) near3 (characteristic\$2 or attribute\$2 or information))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:12
S6	2111	(((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker))) or (directional with speaker) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional with speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:12
S7	226	S6 and ((environment\$3 or vicinity or user) near3 (characteristic\$2 or attribute\$2 or information))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:12
S8	63	S7 and audio and ((position near3 (user or person or listener or passenger)) or (remote near2 controller))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:18
S9	58215	"709".clas.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:19
S11	2111	(((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker))) or (directional with speaker) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional with speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:30

## EAST Search History

S12	226	S11 and ((environment\$3 or vicinity or user) near3 (characteristic\$2 or attribute\$2 or information))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:23
S13	110	S12 and (directional near3 (speaker or audio))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:26
S14	43	S13 and ((position near3 (user or person or listener or passenger) or (remote near2 controller))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:27
S15	20	S12 and ((directional) near3 ((speaker or audio) NOT microphone))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:28
S16	7	S15 and ((position near3 (user or person or listener or passenger) or (remote near2 controller))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:27
S17	72	((((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker))) or (directional with speaker) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional with speaker)) and ((environment\$3 or vicinity or user) near3 (characteristic\$2 or attribute\$2 or information)) and ((position near3 (user or person or listener or passenger) or (remote near2 controller))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:31
S18	2	"20040208324".PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/16 14:55
S19	2	"6643377".PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 14:46

## EAST Search History

S20	58	(381/306 381/333 381/160 381/303 181/155).ccls. and (volume adj (control or knob))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 18:58
S21	0	(381/306 381/333 381/160 381/303 181/155).ccls. and (volume adj (control or knob) same (set adj top adj box))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 16:48
S24	1	"381".clas. and ((volume adj (control or knob) same (set top box))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	ADJ	OFF	2007/10/15 16:52
S25	8	("381".clas. and (volume adj (control or knob))) and (teleconferencing)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 16:56
S26	2384	("381".clas. and (volume adj (control or knob)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 16:56
S27	0	(directional adj speaker) and (regions) and (ultrasonic with elements)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 19:02
S28	3	(directional adj speaker) and (region\$2) and (ultrasonic with element\$2)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/15 19:04
S29	15	(directional adj speaker) and (speaker same (region\$2 or segment or area or surface)) and (ultrasonic with element\$2)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:06
S30	17	(directional adj speaker) and (speaker same (region\$2 or segment or area or surface or transducer)) and (ultrasonic with element\$2)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:16
S31	13	Ultrasonic same Emitter same Transducer same Device same Configuration	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:11

## EAST Search History

S32	17	(directional adj speaker) and (speaker same (region\$2 or segment or area or surface or transducer or array)) and (ultrasonic with element\$2)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:17
S33	93	(directional adj speaker) and (speaker same (region\$2 or segment or area or surface or transducer or array)) and (ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:18
S34	179	((directional or parametric) adj speaker) and (speaker same (region\$2 or segment or area or surface or transducer or array)) and (ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:18
S35	160	((directional or parametric) adj speaker) and (speaker same (region\$2 or segment or transducer or array)) and (ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/16 14:56
S36	177	parametric adj array	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/15 19:26
S37	82	((directional or parametric) adj speaker) and (speaker same (region\$2 or segment or transducer or array)) and (ultrasonic) and box	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/16 15:23
S38	4	("5889870" "6229899").pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/16 15:24
S39	847	(((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) same directional) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional adj speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 12:54
S40	2	norris-elwood.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/16 16:22

## EAST Search History

S41	1	norris-e.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/16 16:22
S42	241	norris-e\$10.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/16 16:22
S43	90	norris-el\$10.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/16 16:22
S44	87	norris-elw\$8.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/16 16:23
S45	847	((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) same directional) or ((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional adj speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/22 17:16
S46	0	S45 and (collinear with curv\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 13:10
S47	0	S45 and (collinear same curv\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 13:11
S48	0	S45 and (colinear same curv\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 13:11
S49	0	S45 and (\$5collinear same curv\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 13:12

## EAST Search History

S50	798	(\$5collinear same curv\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 14:58
S51	15	(\$5collinear same curv\$4) and speaker	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 13:12
S52	83	norris-elwood-g.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/17 15:03
S53	850	(((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) same directional) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional adj speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/22 17:18
S54	34	S53 and ((user audio listener wearer personal hearing) adj (preference characteristic ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/22 17:21
S55	67	(S53 or directional adj speaker) and ((user audio listener wearer personal hearing) adj (preference characteristic ))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/22 17:22
S58	2	"20010038698".PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/23 12:43
S59	21	(ultrasonic or directional or hypersonic) adj4 reflect\$4 adj4 (multiple or many or several or two or second) adj0 (surface or substrate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/23 13:22
S60	28	S59 or (ultrasonic or directional or hypersonic) adj4 reflect\$4 adj0 (multiple or many or several or two or second) adj4 (surface or substrate)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/23 13:23

## EAST Search History

S61	2	"20010055397".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/23 14:24
S62	854	((((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) same directional) or (((ultra adj sonic) or (hyper adj sonic) or hypersonic or ultrasonic) near3 (speaker)) or (directional adj speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/23 16:03
S63	14	S62 same (frequenc\$4 with width with (beam or column))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/23 16:03
S64	937	(frequenc\$4 with width with (beam or column)) same direction\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/23 16:09
S65	12	(frequenc\$4 with width with (beam or column)) same direction\$3 same carrier same ultrasonic	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/23 16:18
S66	13	(frequenc\$4 with (width or broad\$6) with (beam or column)) same direction\$3 same carrier same ultrasonic	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/23 16:18
S67	185	381/160.ccls or 381/387.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/24 15:05
S68	0	S67 and (frequenc\$4 same (width or broad\$6) same (\$6beam or wave\$5 or column)) same direction\$3 same (carrier or ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 15:09
S69	11	S67 and (frequenc\$4 same (width or broad\$6) same (\$6beam or wave\$5 or column or acoustic\$3)) same (directional\$3 or carrier or ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 15:14

## EAST Search History

S70	2	"6556687".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 15:28
S71	1033	(frequenc\$4 with width with (beam or column)) same (direction\$3 or ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 15:54
S72	406	(frequenc\$4 with (width or broad\$5 or breadth or wide\$5) with (beam or column) with (increas\$4 or broad\$5)) same (direction\$3 or ultrasonic)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 15:56
S73	14	S72 and (audio and speaker)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 15:58
S74	2	"20010055397".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/24 16:50
S75	1	S74 and (frequency same (ultrasonic or directional))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/10/24 16:50
S76	1	S74 and (frequenc\$4 same (ultrasonic or directional) same (adjust\$5 control\$4 chang\$5 manipulate determin\$4 set\$5 decreas\$5 increas\$5))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/10/24 16:52

## EAST Search History

S77	107	("20010055397" "20020012441" "20020048382" "20020048385" "20020054689" "20020090099" "20020090103" "20020183648" "20020191807" "20030035552" "20030091200" "20030092377" "20030118198" "20030182104" "20040202339" "20040204168" "3974335" "4128738" "4622440" "4823908" "4955729" "5313663" "5321758" "5357578" "5526411" "5572575" "5648824" "5793875" "5802190" "5819183" "5828768" "5835732" "5943430" "6011855" "6058315" "6086541" "6151398" "6169813" "6243472" "6275596" "6322521" "6363139" "6445804" "6453045" "6477258" "6496205" "6535612" "6584205" "6631196" "6643377" "6650755" "6895261" "7013009").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2008/01/16 14:24
S78	53	("20010055397" "20020012441" "20020048382" "20020048385" "20020054689" "20020090099" "20020090103" "20020183648" "20020191807" "20030035552" "20030091200" "20030092377" "20030118198" "20030182104" "20040202339" "20040204168" "3974335" "4128738" "4622440" "4823908" "4955729" "5313663" "5321758" "5357578" "5526411" "5572575" "5648824" "5793875" "5802190" "5819183" "5828768" "5835732" "5943430" "6011855" "6058315" "6086541" "6151398" "6169813" "6243472" "6275596" "6322521" "6363139" "6445804" "6453045" "6477258" "6496205" "6535612" "6584205" "6631196" "6643377" "6650755" "6895261" "7013009").PN.	US-PGPUB; USPAT	OR	OFF	2008/01/16 14:47

## EAST Search History

S79	61	("20010038698" "20010055397" "20020008718" "20020012441" "20020048382" "20020048385" "20020054689" "20020090099" "20020090103" "20020183648" "20020191807" "20030035552" "20030091200" "20030092377" "20030118198" "20030182104" "20040202339" "20040204168" "3942139" "3974335" "4128738" "4622440" "4823908" "4823908" "4955729" "5313663" "5321758" "5357578" "5495534" "5526411" "5572575" "5648824" "5764595" "5764782" "5793875" "5802190" "5819183" "5828768" "5835732" "5943430" "6011855" "6058315" "6086541" "6151398" "6169813" "6243472" "6275596" "6322521" "6363139" "6445804" "6453045" "6477258" "6496205" "6535612" "6556687" "6584205" "6594367" "6631196" "6643377" "6650755" "6895261" "7013009").PN.	US-PGPUB; USPAT	OR	OFF	2008/01/16 14:50
S80	9	(US-20010038698-\$ or US-20010055397-\$).did. or (US-5495534-\$ or US-4823908-\$ or US-3942139-\$ or US-6594367-\$ or US-5764782-\$ or US-6556687-\$ or US-6643377-\$).did.	US-PGPUB; USPAT	OR	ON	2008/01/16 14:50
S83	50	S78 not S80	US-PGPUB; USPAT	OR	ON	2008/01/16 14:51
S84	8	S79 not S78	US-PGPUB; USPAT	OR	ON	2008/01/16 14:51
S85	3	S80 not S84	US-PGPUB; USPAT	OR	ON	2008/01/16 14:51
S86	52	S79 not S80	US-PGPUB; USPAT	OR	OFF	2008/01/16 14:52
S87	383	381/182.ccis.	US-PGPUB; USPAT	OR	OFF	2008/01/16 14:57
S88	2	"20020008718".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 15:44
S89	247	(((hearing audio) adj (preference characteristic)) near5 (user listener passenger))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 15:47

## EAST Search History

S90	32	(((hearing audio) adj (preference characteristic)) near5 (user listener passenger)) same (personalization personal personaliz\$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 15:49
S91	89	(((hearing) adj (preference characteristic)) near5 (user listener passenger))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 15:55
S92	42	"381".clas. and S91	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 15:55
S93	2	(((hearing) adj (preference characteristic)) near5 (user listener passenger)) same (stereo or receiver)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 15:59
S97	24	(stereo) with (audio near2 profile)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/15 16:09
S98	2	"5666424".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2008/02/16 13:25
S99	1	(US-20030035552-\$).did.	US-PGPUB	OR	ON	2008/02/16 13:38